REMARKS

Applicants have now had an opportunity to carefully consider the Examiner's comments set forth in the Advisory Action of November 15, 2005.

Reconsideration of the Application is requested.

The Office Action

Claims 1, 4-18, 20-31, 33, and 34 remain in this application. Claims 2, 3, 19, and 32 have been cancelled.

Claims 1-15, 19, and 22-32 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Allen, et al. (U.S. Patent No. 6,549,299).

Claims 16-18, 20, and 33 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Allen in view of Newell, Jr., et al. (U.S. Patent No. 6,249,666).

Claim 21 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Allen in view of Newell, and in further view of Applicant's prior art.

Claim 34 stands rejected under 35 U.S.C. § 102(b) as being anticipated over Krist, et al. (U.S. Patent No. 5,615,015).

Telephone Conference of November 2, 2005, and Subsequent Advisory Action

Applicant's representatives conducted a telephone interview with Examiner Huntsinger and Examiner Tran, discussing claim 1 in view of the prior art. Examiner Huntsinger indicated that emphasizing the concept of limiting human intervention would be beneficial to the position of the Applicant. The Applicants revised the claims accordingly and submitted the amendments to the Examiner. The Examiner declined to enter the Amendments on the grounds that they raised new issues that would require further consideration and/or search. The present Amendment differs from the Amendment submitted on November 3, 2005 only in that claim 33 has also been amended

The Claims Distinguish over the References of Record

Claim 1 calls for electronically receiving finishing job description information. In contrast, Allen shows that a user submits instructions and those instructions are printed out on a computer-readable cover sheet. This cover sheet is fed into the finisher along with the rest of the job to be finished to convey the finishing information to the finishing

machine. The method of information conveyance taught by Allen is an optical transfer of a physically printed barcode after the print job is processed, not an electronic transmission of the finishing instructions to the finishing device.

Further, claim 1 calls for receiving the finishing job description information before commencement of a printing job. The instructions of Allen are conveyed to the finishing device after the job is printed, not before, as called for in claim 1. A user picks up the job from the printer output tray, along with the top sheet with the finishing instructions, and then places them on a finisher input tray. The user then tells the finisher to commence the finishing job, and it is only then that the finisher gets the instructions, when it scans the top sheet with the instructions.

Additionally, the job description includes information descriptive of the job and identifies job segments of the job, as recited by claim 1. Allen fails to disseminate job segments. Each finishing job of Allen is provided with its own individual top sheet with instructions. The finisher does not have any sense of an overall job status or job segments because any individual segments are provided to the finisher of Allen as discrete jobs. This works for Allen because human intervention is required to transport each job from the printer to the finisher, as shown, for example, in figure 1 of Allen. The present application, in contrast, can receive segment after segment automatically, and therefore it is beneficial for the present application to have a sense of overall job status, and how to proceed from segment to segment. Allen performs its tasks piecemeal, and does not provide the type of continuity contemplated by the present application.

Claim 1 also calls for communicating programming data for programming and configuring at least one finishing device for implementation of the finishing job by automatically programming the finishing device over a communications network. This is significant because Allen transmits instructions to the finishing device via an optically read barcode. Allen fails to teach programming the finishing device over a communications network. The present application contemplates transmission of programming and configuring information over a network before a job is even printed, and claim 1 recites these aspects that are not present in Allen.

Lastly, Claim 1 now calls for automatically propagating job segments from outputs of printing devices to inputs of finishing devices. This portion of claim 1 emphasizes that there is an automated pathway from the printers to the finishers, eliminating the need for

human intervention in moving the job segments from the printers to the finishers. Allen shows (for example, in Fig. 1) that a job segment with a printed top sheet (containing the finishing instructions) is manually moved from the printer to the finisher. Allen fails to teach automatic propagation from the printing devices to the finishing devices.

For the above stated reasons, it is respectfully submitted that **claim 1** and **claims 4-18**, and **20-31** dependent therefrom now distinguish patentably and unobviously over the references of record.

Claim 4 calls for the step of communicating to include identifying the input locations to the finishing device in which the job segments are to be placed. This is so the machine doing the printing knows along which finishing path to send the completed portions of the print job. Because Allen requires a person to move the job from one machine to the other, it would be useless to communicate the correct finishing input locations. If a printer has multiple output paths, this communication is beneficial in that the printer knows on which output path to send the job. When the printed job needs to be manually moved, as in Allen, such a communication is useless. Were it not already patentable by virtue of its dependency on claim 1, it is respectfully submitted that **claim 4** further distinguishes patentably and unobviously over the references of record.

Claim 7 calls for using the job segment identifier to retrieve finishing job information for all job segments of the finishing job. Allen fails to teach this aspect of the present application. To the contrary, Allen specifically limits the finishing job information to only the section that has been printed and is waiting in the output tray of the printing device. (Allen, col. 4, lines 58-59) Therefore, it is respectfully submitted that **claim 7** further defines patentably and unobviously over the references of record.

Claim 8 calls for extracting status information relating to a plurality of job segments identified in the job model. Allen Neither teaches, nor reasonably suggests extracting status information. The finisher of Allen only addresses one segment at a time, as discussed previously with regard to claim 7. The finisher of Allen could certainly report what it had done previously, but it has know way of fairly knowing what is to come when it doesn't receive instructions until a user sets a stack of papers in the input tray. Resultantly, it would be impossible for the finisher of Allen to give a status of the job if it does not yet know the scope or length of the job. Though **claim 8** is patentable by virtue of its ultimate dependence on claim 1, it is respectfully submitted that **claim 8** and **claim 9**

dependent therefrom further define patentably and unobviously over the references of record.

Claim 12 calls for receiving information identifying at least one finishing device to be used in performance of the finishing job. The cited portion of Allen indicates that Allen conveys the type of work to be done, but not necessarily the device that is going to do it. In the present application, it is possible for a sheet of paper to have multiple pathways that lead to separate finishing devices, and the printer would need instructions on which path to set the sheet of paper. Since a user has to physically transport the printed job to the finisher in Allen, there is no need for Allen to indicate a device. Because once printed, the sheets arrive at an output tray and stop, the printing device of Allen has no need of where the sheets are going next. Even if **claim 12** were not patentable by virtue of its dependency on claim 1, it is respectfully submitted that **claim 12** and **claims 13-18** dependant therefrom further distinguish patentably and unobviously over the references of record.

Claim 13 calls for determining whether the identified finishing device is available for performance of the finishing job. The cited section of Allen does not reasonably suggest this aspect of the present application. At col. 5, lines 51-60, Allen suggests that the presence/absence of the barcode, and where it appears can be used to perform diagnostics on the printing device that the paper just came from, but Allen in no way suggests that this could tell whether a downstream finishing device is ready to perform a finishing task. A permanent mark printed on a piece of paper can not track the readiness of multiple finishing devices. Aside from its dependencies on claim 12 and claim 1, it is respectfully submitted that **claim 13** and **claims 14-17** dependent therefrom now distinguish patentably and unobviously over the references of record.

Claim 14 calls for, in response to determining that the identified device is not currently available, communicating issuing commands to program the availability of the identified device. Col. 5 line 61 – col. 6 line 3 describes how a finisher in Allen handles a misfed sheet. It does not, however, teach communicating issuing commands about a device. How a finisher handles a misfed sheet has little to do with communicating the availability of a device. Claim 14 is already patentable by virtue of its dependencies on claims 1, 12, and 13. Nevertheless, it is respectfully submitted, that by its own merit, **claim 14** distinguishes patentably and unobviously over the references of record.

Claim 16 calls for amending the job model to select a different thread for finishing of the job in response to a finisher not being available. Knowing different print paths through the printer, as shown in Newell, col. 8, lines 64-65 is part of selecting a different thread, but Newell fails to teach amending the job model in response to unavailability of a device. Newell is limited to determining the possible print paths through a system, and all devices associated with the print paths. For each job, Newell designates what each component's task is in the current job, (col. 9, lines 14-21) but Newell states nothing about when a finisher becomes unavailable. It is therefore respectfully submitted that **claim 16,** and **claim 17** dependent therefrom, distinguish further patentably and unobviously over the references of record.

Claim 17 calls for creating different job segments in order to conform to the amended job model. As discussed above, Newell fails to teach amending the print job. It is therefore respectfully submitted that **claim 17** further defines patentably and unobviously over the references of record.

Claim 27 calls for issuing commands to adjust performance conditions of at least one finishing device. The cited section of Newell does not teach adjusting the performance of the finisher. In the cited section, Newell discusses either halting the job in response to a sheet misfeed, or marking misfed sheets as defective. These operations do not reasonably suggest that Newell contemplates adjusting the performance of the finisher. It is therefore respectfully submitted that, notwithstanding its dependency on claim 1, **claim 27** further defines patentably and unobviously over the references of record.

Claim 28 calls for issuing commands to pause a finishing device in response to a temporary stoppage of another finishing device. Allen fails to teach dual finishing devices. Allen only discloses one finishing device, so it is unreasonable to assume Allen suggests running two finishing devices simultaneously. Therefore, Allen does not fairly suggest stopping one finisher in response to the stoppage of another finisher. It is therefore respectfully submitted that **claim 28** defines patentably and unobviously over the references of record.

Claim 30 calls for issuing restart commands after the cause of the pause has been cured. Allen does not teach this aspect of the present application. To the contrary, at col. 6, lines 44-48, Allen teaches discharging partially finished jobs and beginning operations on a new job. It is therefore respectfully submitted that **claim 30** further defines patentably

and unobviously over the references of record on its own accord, in addition to its patentability by virtue of its ultimate dependence on claim 1.

Claim 31 calls for sending tracking data for a completed job to a central database of the finishing system. The cited section of Allen describes dissemination of information to interested parties, but Allen fails to explicitly teach a central database. It is therefore respectfully submitted that **claim 31** further defines patentably and unobviously over the references of record.

Claim 33 now calls for sending job segment and job model information from the at least one database to at least one finisher before a corresponding print job is initiated. In contrast, Allen shows that such information is passed to the finisher only after the print job is completed; a user must carry the printed job over to the finisher after it is done. (Allen, col. 4, lines 13-18) Allen fails to teach pre-emptive programming of the finishing device, only programming at the time of finishing. Newell adds nothing to cure the deficiency of Allen. It is therefore respectfully submitted that **claim 33** distinguishes patentably and unobviously over the references of record.

Similarly, **claim 34** calls for the finishing device to receive electronic instructions for finishing the print media before the printing apparatus applies markings to the print media. As stated above, Allen teaches transferring the finishing instructions after the print job has completed.

Additionally, claim 34 calls for at least one media pathway leading from the printing apparatus to the finishing device that transports printed media to the finishing device. In contrast to claim 34, Allen teaches that a stack of papers (including the finishing instructions) has to be manually transported from the printer to the finisher.

Moreover, Allen fails to teach the aspect of electronic instructions provided to the finishing device. Allen prints out a hardcopy cover sheet for each job with the instructions on it. There is no need for the printer and finisher of Allen to be associated in any fashion, as long as the finisher has an optical reader that can read the instruction sheet. The present application contemplates printer and finisher connected both mechanically (printer output to finisher input) and electronically over a network, for integration of print jobs with finishing jobs. It is respectfully submitted that Allen does not anticipate claim 34, and that **claim 34** defines over the references of record.

CONCLUSION

For the reasons detailed above, it is submitted all claims remaining in the application (Claims 1, 4-18, 20-31, 33, and 34) are now in condition for allowance. The foregoing comments do not require unnecessary additional search or examination.

In the event the Examiner considers personal contact advantageous to the disposition of this case, he is hereby authorized to call Patrick R. Roche, at Telephone Number (216) 861-5582.

Respectfully submitted,

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